

IN THE CLAIMS

Please amend the claims to read as follows:

1-32. (canceled)

33. (New) Claiming the industrial design: An internal combustion engine has a general shape looks alike the shape of electric motor, this engine comprising a case 2 has a cylindrical cavity comprising a central main crankshaft 6 disposing at least a flywheel 3, centrally mounted and geared thereon has external smooth circumference width to rotate coaxial therein its case, one or more cylindrical space is inside the flywheel on center-side has a plan of its central axis perpendicular on wheel's central line thereof defining a cylinder 41 with one side of its end length opened outwardly on angle 45° or more at its wheel's tangent, a piston 42 to move inside it fixed with the closed end (i.e. cylinder bas) by an elastic spring or alike to provide deferential free linear movement for the piston due to resisting any stress while consisting a means to form hydraulic sliding rod pump therein for servicing oil into piston wall thereon, defining piston's push-arm 7, the vacuum which is surrounded by piston's top, cylinder's wall and its facing cavity's wall defining a space of a combustion chamber 1, circular non-penetrated seals 26 fixed and to be interlocked on two side edges of flywheel circumference 4 with the case, three group or more of seal mass 19 affixed on a radial locations on case cavity facing and contacting the flywheel circumference width designed to isolate each revolution into three zones or performance modes relatively to the chamber as conducted by its flywheel rotating therewith, a rotation is to have a chamber firstly be fed with air-fuel mixture by inlet 20 via inlet valve 22 in a feeding zone, to pass secondly on sparking or ignition zone of plug(s) 9, to exploding its fuel-mixture to act on its piston by a stress to depress it downward while resisting it by its piston's push-arm while transferring a potential force to its cylinder bas to act as a side force on its flywheel thereon causing a rotation power, then a chamber will pass thirdly on exhaust zone of opening 30 on the facing case cavity wall which contains wings aligned in specific design for expelling resulting exhaust gases while creating beneficial aerodynamic effects during that speedily escaping gases from its flywheel chamber by implementing physical influence by relevant Bernoulli's concept but inverting such reactions on the chamber

in a way (imitating escaping balloon principle) to push it in the rotation direction (i.e. increase its flywheel rotation) causing an action similar to a turbine effect on the flywheel to add more rotating power on the engine output caused by the effect of exhaust gases, this zone ended with inlet valve 21 for puffing pure air to scavenge and to completely clean the chamber from its remaining exhaust gases, a power zone could be defined as wherever power stresses to be happened, these performances will be repeated for each chamber as its revolution will continue, the three isolated zones will provide free and flexible environment inside the engine to provoke the relevant kinetic energies to appear in away to be implemented usefully and beneficially to increase engine output or by reducing consumption of a said fuel, while pressured air-fuel mixture is to be fed to the chamber(s) using compressor or alike has air store and working in association of its engine to supply this feeding mission and the a puffing mission, all done by a network of pipes, fuel spraying device 20 as carburetor or alike, or by fuel injecting device with other accessories, ignition distributor 33 or alike associated with crankshaft rotation, inlet valves 21, 22 have their relevant mechanical timing control by edge(s) of circular light metal pad(s) 17 which is mounted surrounding each side of its flywheel and coinciding with it, used also for oil and cooling services containing radius grooves to discharge oil outwardly from central oil canal 24 inside a crankshaft or a place alike nearby which defining a central oil supply canal servicing engine parts specially the piston(s) via its rod pump 10 in its push-arm 7 working relatively downwardly and upwardly with its motion, linked by central oil canal via flywheel oil intake hole, serving oil to piston to flows back via flywheel side outlet to its side pad to outwardly case by implementing centrifuge concept, while cooling the case returning to the main oil tank 35 which has an opening to the atmosphere to allow using the centrifugal concept, other regular parts are required like starting motor, oil pump and cooling radiators (etc.), the relevant data will govern the whole dimensions and wherever a case has many said disciplined flywheels each wheel could work separately with its independent relevant feeding accessories and all could be controlled in the engine by an automatic management.

34. (New) The engine designed as in claim 33, further comprising the feature of Piston, Rotary and Turbine principles, to perform all together in a compound unit designed in smooth simple mechanism system to provide best utility for potential fuel combustion power with new technique of concentrating the reactions of physical

kinetic power occurred by elements inside the engine, to have almost of them beneficially applied on engine automotive output.

35. (New) The engine designed as in claim 33, further comprising a feature of demonstrating no energy-lost stroke, all piston displacements as downward or upward motions will act positively, during the performance to be beneficial on the engine output .

36. (New) The engine designed as in claim 33, further comprising a feature of using the potential aerodynamic reactions of exhaust gases to increase the automotive power on engine output, by using a technique of aerodynamically modified exhaust openings outlet to create physical reaction that would be inverted to create influence increasing the rotation speed of the flywheel(s) therewith in the engine in which the collective reactions will lead to the turbine performance.

37. (New) The engine designed as in claim 33, further comprising a feature of an ability to use ultimate (related) boosted compressed air-fuel mixture in feeding chambers which distributed on flywheel(s) edge each of independent performance for executing fuel combustion energy therein to act therefor as rotating forces on their relevant flywheel(s) thereon then to let the expelling exhaust gases of each chamber to play a part to increase rotations on each flywheel in which in this design, has becomes as a modified turbine device consisting combustion chambers which will create its own aerodynamic turbulence reactions to rotate the flywheel thereon as turbine, the design will demonstrate a compound of three modes at once in spark engine power, a piston, rotary and turbine performances while the piston mode is economic and easily to be controlled leads to a rotary motion, in addition to have a turbine mode of using utility of exhaust aerodynamic effect for squeezing more accelerated power during engine performance, using simple rotary mechanism to bear any range of stress inside the chambers to be as automotive momentum with minimum energy lost as all associated on the final output, this could establish a typical bridge to cover that wide gap between Pistons system and the Turbine system to be composite together as a compound system inside this compact engine.

38. (New) The engine designed as in claim 33, further comprising a feature of allowing independent performance of engine parts by regulating feeding of fuel-mixture into each chamber, as placed on its flywheel(s) ; based on its piston's elastic push-arm of independent deferential displacements inside the cylinder while the principle of this discipline is to maintain a perfect fuel combustion in each chamber at all time by providing the exact extension of space for any fuel explosion occurred inside the chamber in depressing the piston to be as an effective force to rotate or increase its flywheel rotation, each chambers could provide various power to be associated with each else in engine output, the flexibility in this system will allow using different compression effect of fuel rate (or octane factor) upon any piston even during the performance without causing mechanical disturbance, keeping best firing stroke as an ideal explosion space for any fuel mixture efficiency even with the same spraying device, also Gas fuel could be used in this system with its feeding device, the automatic feeding control could be significantly used for each group separately as independent (i.e. like each flywheel or group of pistons) to have the actual needed part(s) and the right fuel consumption to be in performance for any application, a system demonstrating a flexible and harmonic ways in using deferential fuel combustion intensities during all conditions while terminating knocking and rumbling problems, while any piston could work or stops as required during engine rotation, without bad influencing on the other parts of the engine, considering the relevant pistons and/or flywheels numbers in the engine, such characteristic will provide auto-output performances to provide the ultimate efficiency of a said fuel for any work, to establishing The Automatic Output Power Engine.

39. (New) The engine designed as in claim 33, further comprising a feature of using principle of puffing air inside each chamber (i.e. on piston cup directly) at the end of exhaust stroke while still hot in expelling exhaust gases, the scavenging of pure air into the chamber will reduce its heat in each cycle and would provide perfect and controlled adiabatic influence, expelling the soot which left behind, while air pressure and temperature could be controlled, the puffing mission could be done even in each double revolutions consecutively and/or harmonically with other chambers at highly speed since the system would provide ability of independent control performance, this built-in technique to reduce the pollution of exhaust gases during performance, in puffing pressured air directly inside each chamber, while still has hot exhaust gases

therein at end of each exhaust stroke; will allow to complete the oxidization of the harmful exhaust gases i.e. those unstable gases like CO & NOx (SOx if exist) transferring them to an environment-friendly status before expelling them outside the engine, to reduce pollution and acid rains, this mission will be very efficient when adding specific anti-pollution treating materials.

40. (New) The engine designed as in claim 33, has feature of using principle of independent oil servicing for each piston by its rod pump working relatively to its piston's displacement supplying a required oil needs for piston wall as sliding with its cylinder, linked with main central supply canal(tunnel)located in engine central axis while using the centrifugal concept in discharging the oil outwardly due to engine rotation via specific suggested devices of flywheel side-pads into disciplined tunnels inside engine case, this discipline providing efficient adiabatic status for the pistons keeping the engine oil sump located far from chambers if penetration of gases might happened on leakage in the seal to prevent its due expected influence of oil smoke.

41. (New) The engine designed as in claim 33, has feature of using the utility of using circular discipline and its miracle physical reflections depending on free flexible elastic push-arm for pistons with chambers placed on circular zone on flywheel(s) circumference, employing such circular shape advantages in reducing the displacement of moving pistons at work due to increasing rotary speed of wheel(s) inside the engine, the piston's linear depressed displacement will be proportionally decreased with the increase of revolution speed depending on such circular natural concept to influence on the consecutive linear effect of piston force(s) that acting on the same rotation direction while producing such dynamic rotary motion which will always vary from its previous force(s) effect during increasing of revolution speed (of flywheel) even on keeping a constant speed, this criteria due to kinetic energy will reduce such force of each piston(s) acting on its flywheel which could be precisely controlled to reduce a fuel required for the consecutive explosions occurred in chamber(s) that would be reduced due to reduction of piston(s) displacements i.e. reductions of chamber(s) expanding space, meaning this system, as it is boosting(charging) air-fuel to engine's pistons; could reduce its feeding i.e. its fuel consumption while increasing its speed by using such smart utility of speed-factor to be related with the feeding depending on this kinetic physical concept.

42. (New) The engine designed as in claim 33, has feature in using the utility of Centrifugal concept in highly speeds, to reduce the fuel consumption, as demonstrated in the discipline of this system by circular placing of the chambers with free movement of all pistons related with the weight of pistons masses and an assumption existing of mass for the resultant gases in these chambers after executing fuel combustion mission keeping reactions on wheel(s) but on other directions i.e. the cavity wall of chamber(s), at highly revolution speeds, the physical centrifugal reaction will push piston mass outwardly with such gas mass in which it will be reflected by cavity's wall i.e. reacting as a balloon resistance as it locked inside these chamber(s) to react back again on the same direction on piston(s) meaning extra power on piston that receiving the combustion force, it means this additional way of adding more power due to centrifuge effect could reduce fuel consumption while increasing the speed, the indicator diagram for both claims 9&10 could be used in approaching a theoretical ideal situation for the minimum piston linear reciprocated displacement for a fixed speed to program a computer controlled regulator to provide the actual requirements of feeding to reduce the fuel consumption at certain highly speeds, related to deferent engine loading.

43. (New) The engine designed as in claim 33, this engine is using valves for chambers, controlled separately without using the essential articulated timing connection, e.g. a cam-shaft, this integral system is canceling the main old slipping bearing stress pads (points) on the crank of those conventional engine, this system canceling those articulated parts and their weights.

44. (New) The engine designed as in claim 33, this engine has a discipline seated to facilitated ways in regulating and adjusting all engine activities, i.e. control of fuel consumption, output power, treating pollution of exhaust gases, the engine and oil heat, the use of aerodynamic power in output and a canceling of a defected piston even the contact of seals on wheel(s) could also be controlled mechanically or by thermal adjustment in relation to engine speed or when unused for Auto-Engine.

45. (New) The engine designed as in claim 33, this engine could be modified easily for various kind of power output, while keeping the same general dimensions;

by only changing the qualification of elastic push-arm for group of pistons or all, with little changes in the fuel mixture feeding device(s) if required that is because of the free circular sliding discipline of the engine to bear any range of potential power and more it is depending on piston elastic push-arms.

46. (New) The engine designed as in claim 33 this engine could be in wide options depending on this system principal, for various proposals as different in power wheel numbers or diameters, cylinders(piston) diameters or cylinder numbers in each wheel, or even in dimensions of all these in one engine for the wide application Auto Engine, a connected hydraulic system for two pistons in one wheel could be used also to exceed expelling of exhaust gases more rapidly, a differential cross-diameter of push-arms metal spring could be used.

47. (New) The engine designed as in claim 33, this engine could be used vertically as its crank in vertical direction as a vertical engine performance, that is because the oil services here are depending mainly on the Centrifugal concept, and the air-fuel is boosting to the engine the speedy output efficiency would make this integral compact engine system is the most suitable one for the promising small Hoover Craft and other small flying equipment. (Fig 23/25).

48. (New) The engine designed as in claim 33, this engine could be designed in a dual or more ignition spark plugs in big diameters wheels, depending on the same system principal considering all the requirements, the exhaust openings could be placed as required or even used with an moving adjustments.

49. (New) The engine designed as in claim 33, this engine could be used easily as a group of different-power unites (engines) on the same crank, to work as one engine for heavily application (generations) each engine could have its own oil services and control, to work or stop without influencing on other because of the sliding rotary design with independent effects of parts.

50. (New) The engine designed as in claim 33, this engine could use gasoline (benzene) in different kind of octane or Jet kerosene or even Gas fuel on the same

principal, the existing of flexible piston push-arm could provide this capability, by just changing the feeding accessories or push-arm for the pistons.

51. (New) The engine designed as in claim 33, this engine has output controlled by pressure of its feeding it also has options to be Auto-engine for multiple-purposes in performance that could be provided by different proposals on modifications as,

A / Air-fuel mixture feeding pipe has controlled inlets to feed each pistons of the engine (the piston in any flywheel- unit) by valve regulator or management,

B/ Air-fuel mixture feeding pipes with controlled inlet for each wheel unit ,

C/ Different pistons diameters for any wheel with their particular accessories,

D/ Different pistons numbers in any wheel with a modified distributor ,

E/ Different wheels diameters with their particular feeding accessories,

F/ Different piston push-arms (elastic resistance) for any wheel(s) that might be used in a specific applications as a wheel unit(s) for fast acceleration, high speed or in extra heavily work or idle work, or related to other kind of fuel used,

G/ Exhaust opening places, angles, for the wheels its wings direction it could be moveable as required and the location of the last exhaust seal.

52. (New) The engine designed as in claim 33, this engine is using maximum fuel potential energy in the output to be efficient powerful engine because of;

A / Its longer effect and constant moment of piston Power stroke on Crank,

B / Its pistons strokes acting all positively on engine output no stroke lost,

C / Its minimum combustion energy lose due to its sliding rotary mechanism,

D / Its utilization of the potential elastic effect of elements inside the engine,

E / Its utilization of perfect combustion for air-fuel mixture in chambers always,

F / Its way of using the pressured boosted air-fuel mixture into the chambers,

G / Its utilization of the aerodynamic power for exhaust gases in output,

H / Its utilization of the physical powers reactions occurred inside the engine,

53. (New) The engine designed as in claim 33, this engine is very suitable for the current computer age since its parts could perform independently to be workable for programmed applications.

54. (New) The engine designed as in claim 33, this integral engine would eliminate the transmission gear box in the vehicles if used as Auto Engine, it has simple fuel spraying devices, it has safe high speed efficiency as the more speed will cause less vibration frequencies i.e. less distance of pistons displacements, with high adiabatic efficiency, this system has wide options since it could use those various elastic devices used in refilling ordinary automatic weapons such as fast canons or machine guns to change those products to mankind civil purposes.